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**From:** Strynar, Mark [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5A9910D5B38E471497BD875FD329A20A-STRYNAR, MARK]  
**Sent:** 6/14/2018 11:57:25 AM  
**To:** Risen, Amy J [Amy.Risen@ncdenr.gov]  
**CC:** Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]  
**Subject:** RE: using PFECA and PFESA standards

Hi Amy,

Glad you are back among the NC State employee fold.

I have been out of the loop with respect to samples and the measurement of the PFECAs in the Cape Fear river since late fall. They are all being sent to the R4 lab now.

However, my opinion would be for the 3/28 and 4/11 sampling dates the estimated values seem awful low as PFMOAA was always in every sample for us the largest peak. The only real way to see the PFMOAA estimation versus GenX and true analytical comparison is to do so on the same samples.

I will need to dig up some local data NC State is developing to see how the estimation of PFMOAA versus hard quantitation with authentic standards compare.

Mark

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**From:** Risen, Amy J [mailto:Amy.Risen@ncdenr.gov]  
**Sent:** Wednesday, June 13, 2018 4:18 PM  
**To:** Strynar, Mark <Strynar.Mark@epa.gov>  
**Subject:** using PFECA and PFESA standards

Hi Mark,

You and I spoke at the WRRRI conference a few months back. I recently started working with the state of NC again and I have some analytical chemistry questions for you.

We're using GEL labs to analyze water for the extended list of PFAS chemicals. Earlier on they were estimating concentrations of the PFECAs and PFESAs based on GenX. Recently GEL received non-certified standards to generate their standard curves and are analyzing samples this way.

I'm seeing that the values generated from the standards for PFECAs and PFESAs are mostly within 1 order of magnitude from the previous estimates, as predicted. However, I'm seeing that PFMOAA is actually 3 orders of magnitude higher than previously estimated. I'm including a partial table of unofficial data below so you can see what I'm talking about. Are you finding the same thing? We're going to be posting some results online next week that look something like below, and I'm checking in so our team can be informed about this. Feel free to give me a call to discuss.

Collection date	Analysis date	PFAS:	Perfluoro- 2-methoxyacetic acid (PFMOAA)	Perfluoro- (3,5-dioxahexanoic) acid (PFO2HxA)	Perfluoro- 3-methoxy- propanoic acid (PFMOPrA)	Perfluoro- (3,5,7-trioxaooctanoic) acid (PFO3OA)	Perfluoro-4-methoxy- butanic acid (PFMOBA)	Nafion Byproduct 1	Nafion Byproduct 2
		CASN:	674-13-5	39492-88-1	377-73-1	39492-89-2	863090-89-5	29311-67-9	749836-20-2
3/28/2018	4/5/2018	ng/L	0.43	198	858	31	146	ND	89.20
4/11/2018	4/24/2018	ng/L	0.52	194	843	33	148	3.31	82.20
05/03/18	05/09/18	ng/L	306	345	2940	ND	791	ND	59.9
05/16/18	05/22/18	ng/L	246	323	2260	79.5	698	ND	42.8
<i>Values estimated based on GenX for 4/05/18 &amp; 4/24/18 analysis</i>									
<i>Values estimated based on non-certified standards for 5/09/18 &amp; 5/22/18 analysis</i>									

Thank you and I hope all is well with you!  
Amy

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